



DOWEX Ion Exchange Resins

Wear-Out Guidelines

The following tables give resin wear-out rates through chemical and mechanical damage for the first year and for subsequent years in operation. In water treatment applications, typical resin lifetimes can range between 10-15 years for a cation and 3-8 years for anions. Uniform particle size resins such as DOWEX* MONOSPHERE* or DOWEX MARATHON* resins tend to last longer than their Gaussian size counterparts. Note that these figures are based on experience and are guidelines only; actual wear-out rates may differ significantly depending on operating conditions.

Resin wear-out guidelines for UPS and standard resins

| DOWEX Resin Type | Chemical Loss | | Mechanical Loss | |
|-------------------------|---------------|----------------------|-----------------|----------------------|
| | 1st year (%) | 2nd year onwards (%) | 1st year (%) | 2nd year onwards (%) |
| DOWEX MAC-3 | 3 | 3 | 3 | 3 |
| DOWEX HCR-S | 2 | 1 | 3 | 2 |
| DOWEX HGR – W2** | 2 | 1 | 3 | 1 |
| DOWEX MARATHON C | 2 | 1 | 1 | 1 |
| DOWEX MARATHON C-10 | 2 | 1 | 2 | 1 |
| DOWEX MONOSPHERE 650C** | 2 | 1 | 2 | 1 |
| DOWEX MARATHON MSC | 2 | 1 | 2 | 1 |
| DOWEX SBR-P | 7 | 5 | 5 | 3 |
| DOWEX SBR | 7 | 5 | 3 | 3 |
| DOWEX MARATHON A | 7 | 5 | 2 | 2 |
| DOWEX MARATHON 11 | 7 | 5 | 2 | 2 |
| DOWEX MONOSPHERE 550A** | 10 | 5 | 3 | 2 |
| DOWEX MARATHON MSA | 7 | 5 | 3 | 2 |
| DOWEX SAR | 10 | 5 | 3 | 3 |
| DOWEX MARATHON A2 | 10 | 5 | 2 | 2 |
| DOWEX MWA-1 | 6 | 4 | 3 | 3 |
| DOWEX MARATHON WBA | 6 | 4 | 3 | 2 |
| DOWEX MARATHON WBA-2 | 6 | 4 | 3 | 2 |

**Condensate polishing

DOWEX

Ion Exchange Resins

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Resin wear-out guidelines for DOWEX UPCORE Mono resins

| DOWEX Resin Type | Chemical Loss | | Mechanical Loss | |
|--------------------------|---------------|----------------------|-----------------|----------------------|
| | 1st year (%) | 2nd year onwards (%) | 1st year (%) | 2nd year onwards (%) |
| DOWEX UPCORE* MAC-3 | 3 | 3 | 3 | 3 |
| DOWEX UPCORE Mono C-600 | 2 | 1 | 1 | 1 |
| DOWEX UPCORE Mono MSC | 2 | 1 | 2 | 1 |
| DOWEX UPCORE Mono A-500 | 7 | 5 | 2 | 2 |
| DOWEX UPCORE Mono A-625 | 7 | 5 | 2 | 2 |
| DOWEX UPCORE Mono MSA | 7 | 5 | 3 | 2 |
| DOWEX UPCORE Mono A2-500 | 10 | 5 | 2 | 2 |
| DOWEX UPCORE Mono WB-500 | 6 | 4 | 3 | 2 |

WARNING: Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

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